Claims

1. Method for producing a biological active blood serum comprising the steps of:
   a) electrostimulation of a non-human animal
   b) withdrawal of blood from said animal,
   c) isolation of serum from said blood, and
   d) gamma irradiation of said serum.

2. Method according to claim 1, wherein the non-human animal is selected from the group consisting of mammals and birds.

3. Method according to claim 2, wherein the bird is selected from the group consisting of chicken, dug, goose, ostrich, and quail.

4. Method according to any one of claims 1 to 3, wherein in step a) the head, the neck, the body and/or one or more limbs, preferably the head is (are) electro stimulated.

5. Method according to any one of claims 1 to 4, wherein the electro stimulation is carried out for a time period of between 1 and 60 seconds, preferably between 1 and 30 seconds, and more preferably between 2 and 10 seconds.

6. Method according to any one of claims 1 to 5, wherein the electro stimulation is carried out with a voltage in the range of between 50 V and 150 V, preferably 80 V to 120 V, and more preferably between 110 V and 120 V.

7. Method according to any one of claims 1 to 6, wherein the electro stimulation is carried out with a current in the range of between 0.01 A and 0.4 A, preferably between 0.02 A and 0.1 A, and more preferably between 0.04 A and 0.06 A.

8. Method according to any one of claims 1 to 7, wherein the electro stimulation is carried out with a frequency in the range of between 10 and 200 Hz, preferably in the range of between 20 to 100 Hz and more preferably in the range of between 45 to 55 Hz.

9. Method according to any one of claims 1 to 8, wherein said gamma irradiation is administered with an adsorbed radiation dose of between 15 to 35 kGy, preferably of between 20 and 30 kGy.

10. Method according to any one of claims 1 to 9, wherein the source of the gamma radiation is selected from the group consisting of ^{60}Co, ^{137}Cs, ^{67}Cu, ^{67}Ga, ^{111}In, ^{192}Ir, ^{99m}Tc and ^{170}Tm.

11. Method according to any one of claims 1 to 10, wherein the method further comprises the step of incubating said blood prior to step c)

12. Method according to any one of claims 1 to 11, wherein the method further comprises the step of lyophilization of said serum prior to step d).

13. Method according to any one of claims 1 to 11, wherein said blood is arterial and/or venous blood.

14. Blood serum producible according to a method according to any one of claims 1 to 13.

15. Pharmaceutical composition comprising a blood serum according to claim 14 and one or more pharmaceutically acceptable diluents; carriers; excipients, including fillers, binders, lubricants, glidants, disintegrants, adsorbents; and/or preservatives.

16. Pharmaceutical composition according to claim 15, wherein the composition is formulated as a syrup, an infusion or injection solution, a tablet, a capsule, a capslet, lozenge, a liposome, a suppository, a plaster, a band-aid, a retard capsule, a powder, or a slow release formulation.

17. Pharmaceutical composition according to claim 15 or 16, wherein the diluent is water, a buffer, a buffered salt solution or a salt solution.

18. Pharmaceutical composition according to claims 15 to 17, wherein the carrier is selected from the group consisting of cocoa butter and vitebesole.

19. Use of a blood serum according to claim 14 or of a pharmaceutical composition according to any one of claims 15 to 18 for the production of a medicament for the treatment of a disease or condition, which can be affected by an increase of cyclic adenosine monophosphoric acid contents in the brain of the subject requiring treatment.

20. Use of a blood serum according to claim 14 or of a pharmaceutical composition according to any one of claims 15 to 18 for the production of a medicament for the improvement of cognitive and/or learning skills in particular improvement of the long term memory.

21. Use of a blood serum according to claim 14 or of a pharmaceutical composition according to any one of claims 15 to 18 for the production of a medicament for the treatment of seizures, in particular epileptic seizures.

22. Use of a blood serum according to claim 14 or of a pharmaceutical composition according to any of claims 15 to 18 for the production of a medicament for the treatment of nervous diseases.

23. Use of a blood serum according to claim 14 or of a pharmaceutical composition according to any one of claims 15 to 18 for the production of a medicament for the treatment of proliferative diseases and apoplexy.

24. Use according to claim 23, wherein the proliferative disease is selected from the group consisting of malignomas of the gastrointestinal or colorectal tract, the liver, the pancreas, the kidney, the bladder, the thyroid, the prostate, the endometrium, the cervix, the ovary, the uterus, the testes, the skin, the oral cavity; melanoma; dysplastic oral mucosa; invasive oral cancers; small cell and non-small cell lung carcinomas; mammary tumors, in particular hormone-dependent breast cancers and hormone independent breast cancers; transitional and squamous cell cancers; neurological malignancies including neuroblastomas, gliomas, astrocytomas, osteosarcomas, meningiomas; soft tissue sarcomas; hemangioamas and endocrinological tumors, in

25. Use according to claim 23, wherein the proliferative disease comprises cells similar to the human T cell lymphoma cell line Jurkat, the human B cell lymphoma cell line Raj, the human melanoma cell line Bro, the human cervical cancer cell line HeLa, the human adenocarcinoma cell line MCF-7, the osteosarcoma cell line Mg63, the fibrosarcoma cell line HT1080, the neuroblastoma cell line IMR-32 and the hepatocarcinoma cell line HepG2.

26. Use according to claims 19 to 25, wherein the medicament is administered to a subject in need of treatment in an amount ranging from 50 to 150 mg/kg body weight, preferably ranging from 90 to 100 mg/kg body weight.